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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,833	08/30/2001	Gabriel P. Lopez	UNME-0108-1	6872

7590 11/01/2002
Ajay A. Jagtiani
Jagtiani & Associates
Democracy Square Business Center
10379-B Democracy Lane
Fairfax, VA 22030

EXAMINER

FORMAN, BETTY J

ART UNIT	PAPER NUMBER
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1634

DATE MAILED: 11/01/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/941,833

Applicant(s)

LOPEZ ET AL.

Examiner

BJ Forman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-216 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-216 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-61, drawn to a microarray, classified in class 435, subclass 283.1.
 - II. Claims 62-75, drawn to a siloxy diazotized surface, classified in class 501, subclass 11.
 - III. Claims 76-115, drawn to a method for forming a microarray, classified in class 435, subclass 174.
 - IV. Claims 116-145, drawn to a method for forming a siloxy diazotized surface, classified in class 516, subclass 198.
 - V. Claims 146-166, drawn to a method for using a microarray, classified in class 435, subclass 4.
 - VI. Claims 167-174, drawn to a thiolate diazotized surface, classified in class 501, subclass 11.
 - VII. Claims 175-197, drawn to a method for forming a microarray, classified in class 435, subclass 174.
 - VIII. Claims 198-210, drawn to a method for forming a thiolate diazotized surface, classified in class 516, subclass 198.
 - IX. Claims 211-216, drawn to a kit, classified in class 422, subclass 61.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I-IX are independent and distinct. Inventions are independent and distinct if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as capable of use together and they have different modes of operation and/or different functions. The Invention of group I

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operates by providing a surface for derivatization and the invention functions as a microarray of biomolecules. The Invention of group II functions as a siloxy-derivatized surface. The Invention of group III operates by treating a surface to provided a siloxy linker and binding a biomolecule to the surface and the invention functions to provide biomolecules bound to a siloxy amine-derivatized surface. The Invention of group IV operates by treating a surface with a siloxy amine and diazotizing agent and the invention functions to provide a siloxy diazotized surface. The Invention of group V operates by contacting a microarray with biomolecules and removing unbound biomolecules and the invention functions to provide a microarray comprising bound biomolecules. The Invention of group VI functions as a thiolate-derivatized surface. The Invention of group VII operates by treating a surface to provided a thiolate linker and binding a biomolecule to the surface and the invention functions to provide biomolecules bound to a thiolate-derivatized surface. The Invention of group VIII operates by treating a surface with a thiolate amine and diazotizing agent and the invention functions to provide a thiolate diazotized surface. The Invention of group IX functions to provide a siloxy amine treated surface and a diazotizing agent in a kit format.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper and because these inventions are distinct for the reasons given above and the search required for Group I is not co-extensive with that required for Groups II-IX, restriction for examination purposes as indicated is proper.

4. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

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Election of Species

5. This application contains claims directed to multiple patentably distinct species of the claimed invention. Inventions I-IX contains claims directed to three primary species as follows.

First Species Election Requirement: Surface species including; glass, glass bead, glass slide polymer surface, plastic surface, polyethylene terephthalate, silicon wafer, ceramic surface, metal oxide surface, clay surface noble metal surface gold surface, silver surface and copper surface.

Second Species Election Requirement: Linker species including; siloxy and thiolate.

Third Species Election Requirement: Biomolecule species including; single-stranded DNA, double-stranded DNA, protein, ribozyme, RNA and aptamer.

Applicant is required under 35 U.S.C. 121 to MAKE **ONE** ELECTROM FROM EACH OF THE THREE SPECIES SETS **AS DISCLOSED** IN THE SPECIFICATION to which the claims shall be restricted if no generic claim is finally held to be allowable.

6. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEM § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence of identify such evidence now of record showing the species

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to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103 (a) of the other invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (703) 306-5878. The examiner can normally be reached on 6:30 TO 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones can be reached on (703) 308-1152. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-8724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.



BJ Forman, Ph.D.
Patent Examiner
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October 31, 2002